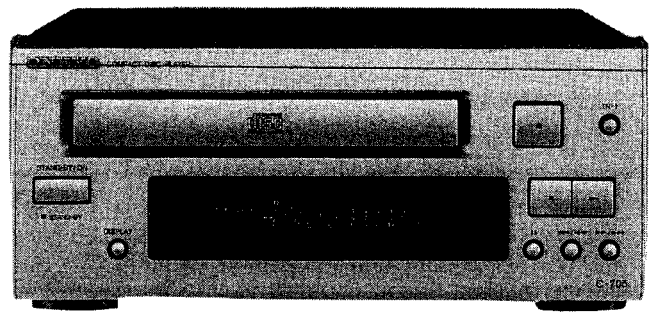
Ref. No. 3591

ONKYO® SERVICE MANUAL

COMPACT DISC PLAYER
MODEL C-705



Silver model

SUD	120V AC, 60Hz
SUP	230V AC, 50Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

SPECIFICATIONS

Signal readout system:	Optical non-contact
Reading rotation:	About 500 -200 r.p.m. (constant linear velocity)
Linear velocity:	1.2-1.4m/s
Error correction system:	Cross Interleave Reed-Solomon code
D/A converter:	1 BIT DAC
Sampling frequency:	352.8kHz (8 times oversampling)
Number of channels:	2 (Stereo)
Frequency response:	5Hz-20kHz
Harmonic distortion:	0.005% (at 1kHz)
Dynamic range:	96 dB
Signal to noise ratio:	90 dB
Channel separation:	85 dB(at 1kHz)
Wow and Flutter:	Below threshold of measurability
Output level:	2 volts r.m.s.
Power consumption:	8W: 230V model 9W:120V model
Dimensions:	205(W)×91(H)×280(D)mm:230V model 205(W)×91(H)×275(D)mm:120V model
Weight:	2.2 kg

ONKYO®
AUDIO COMPONENTS

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SERVICE PROCEDURES

Remove the top cover.
Turn the locked screw to the clockwise to release the lock of gear.(Refer fig.1)
Pull out the tray ass'y.
Remove the stopper.(Refer fig.2)
Press the tray stopper to the arrow mark direction and remove the tray ass'y.

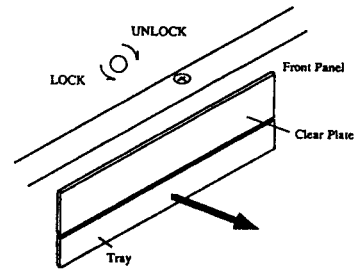


fig.1

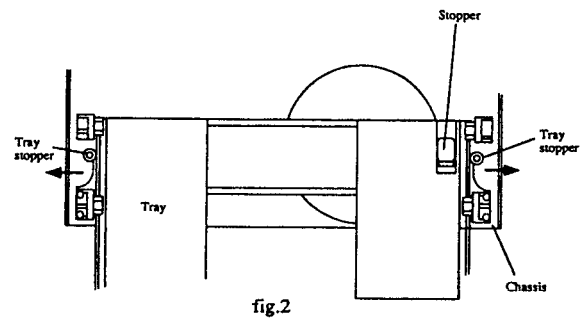


fig.2

CAUTION ON REPLACEMENT OF OPTICAL PICK UP

The laser diode in the optical pickup block is so sensitive to static electricity,surge current and etc, that the components are liable to be broken down or its reliability remarkably deteriorated.

During repair,carefulley take the following precautions. (The following precautions are included in the service parts.)

PRECAUTIONS

1.Ground for the work-desk.
Place a conductive sheet such as a sheet of copper (with inpedance lower than 10MΩ) on the work-desk and place the set on the conductive sheet so that the chassis.

2.Grounding for the test equipment and tools.
Test equipments and toolings should be grounded in order that their ground level is the same the ground of the power source.

3.Grounding for the human body.
Be sure to put on a wrist-strap for grounding whose other end is grounded.
Be particularly careful when the workers wear synthetic fiber clothes, or air is dry.

4.Select a soldering iron that permits no leakage and have the tip of the iron well-grounded.

5.Do not check the laser diode terminals with the probe of a circuit tester or oscilloscope.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

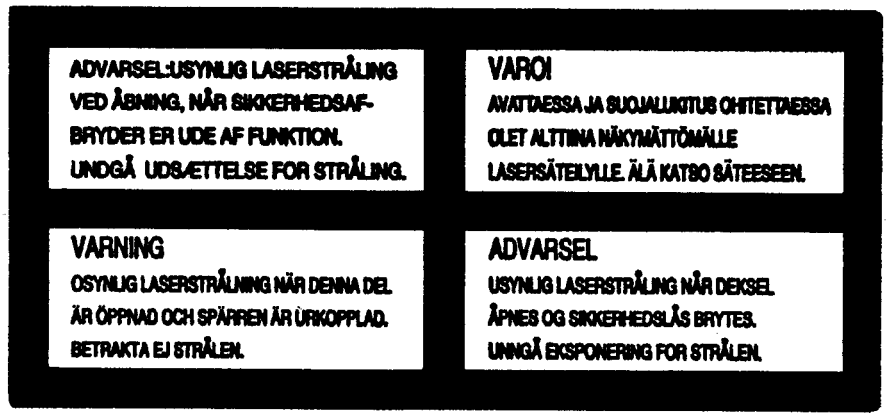
WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMMISION, BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.

Laser Diode Properties
- Material: GaAS/GaAlAs
- Wavelength: 760~780nm
- Emission Duration: continuous
- Laser Output: max. 0.5mW*

* This output is the value measured at a distance about 1.8mm from the objective lens surface on the Optical Pick-up Block.

LASER WARNING LABEL

The labels shown below are affixed.


ADVARSEL:USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAF-BRYDER ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO!
AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING
OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.
ADVARSEL
USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.

ADVARSEL

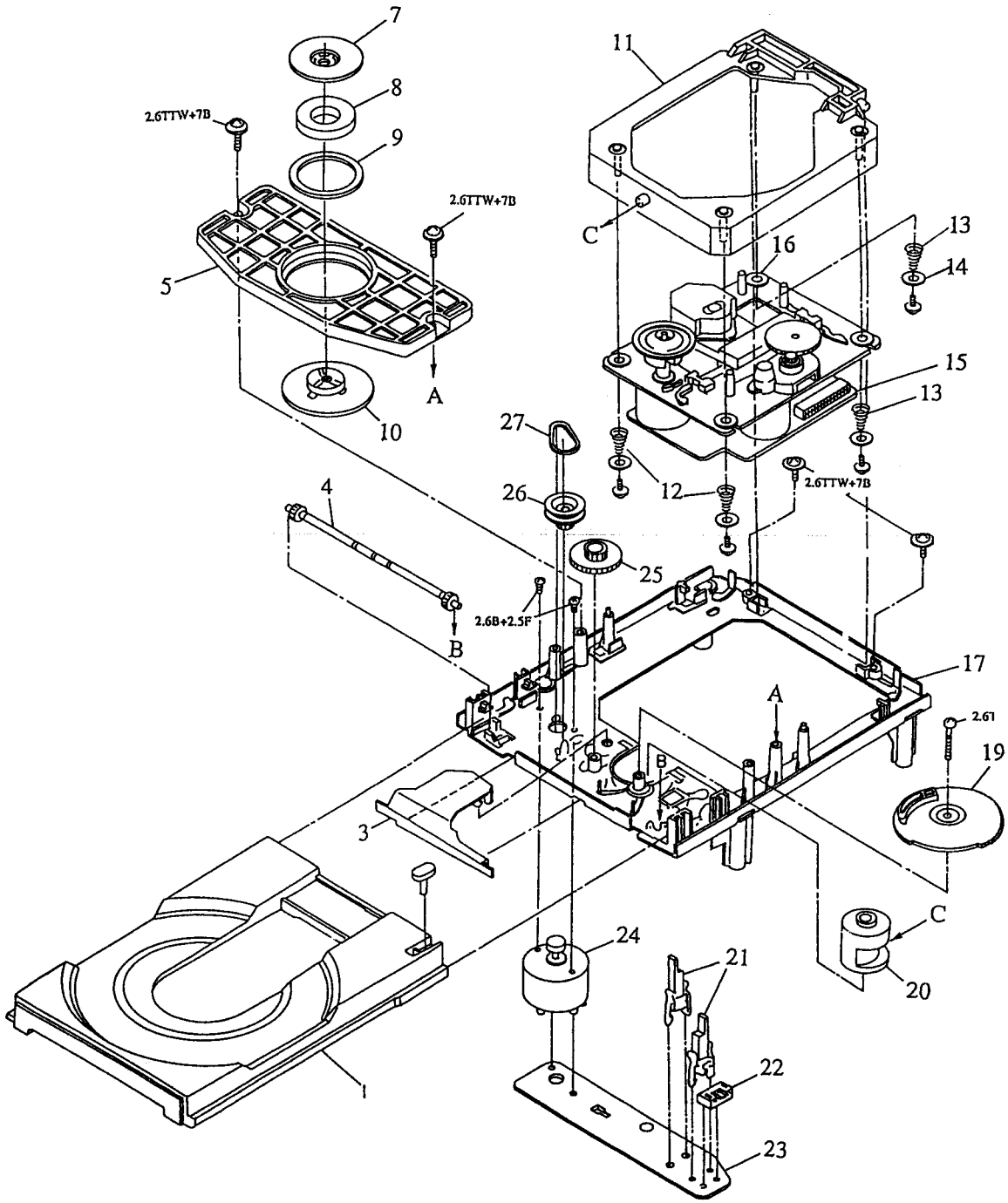
Denna maekning er anbragt på apparatets højre side og indikerer, at apparatet arbejder med laserstråler af klasse 1, hvilket betyder, at der anvendes laserstråler af svageste klasse, og at man ikke på apparatets yderside kan blive udsat for utilladelig kraftig stråling.

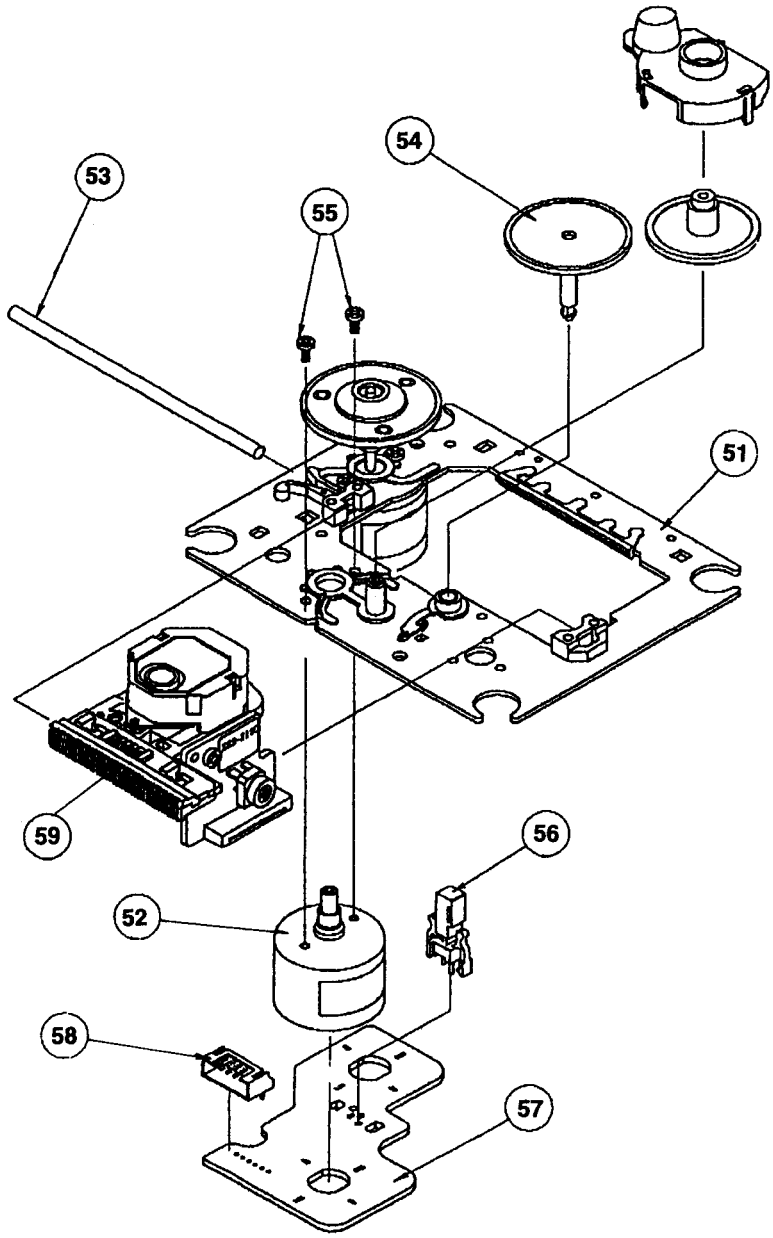
APPARATET BØ/R KUN ABNES AF FAGFOLK MED SE RLIGT KENDSKAB TIL APPARATER MED LASERSTRÅLERI

Indvendigt i apparatet er anbragt den her gengivne advarselsmérkning, som advarer imod at foretage sådnne indgreb i apparatet, at man kan komme til at udsaette sig for laserstråling.

VAROITUS! LAITTEEN KÄYTTÄMINEN MUULLA KUIN TÄSSA KÄYTTOOHJEESSA MAINTULLA TAVALLA SAATTAA ALTISTAA KÄYTTÄJÄN TURVALLISUUSLUOKAN 1 YLITTÄVÄLLE NÄKYMÄTTÖMALLE LASERSÄTEILYLLE.

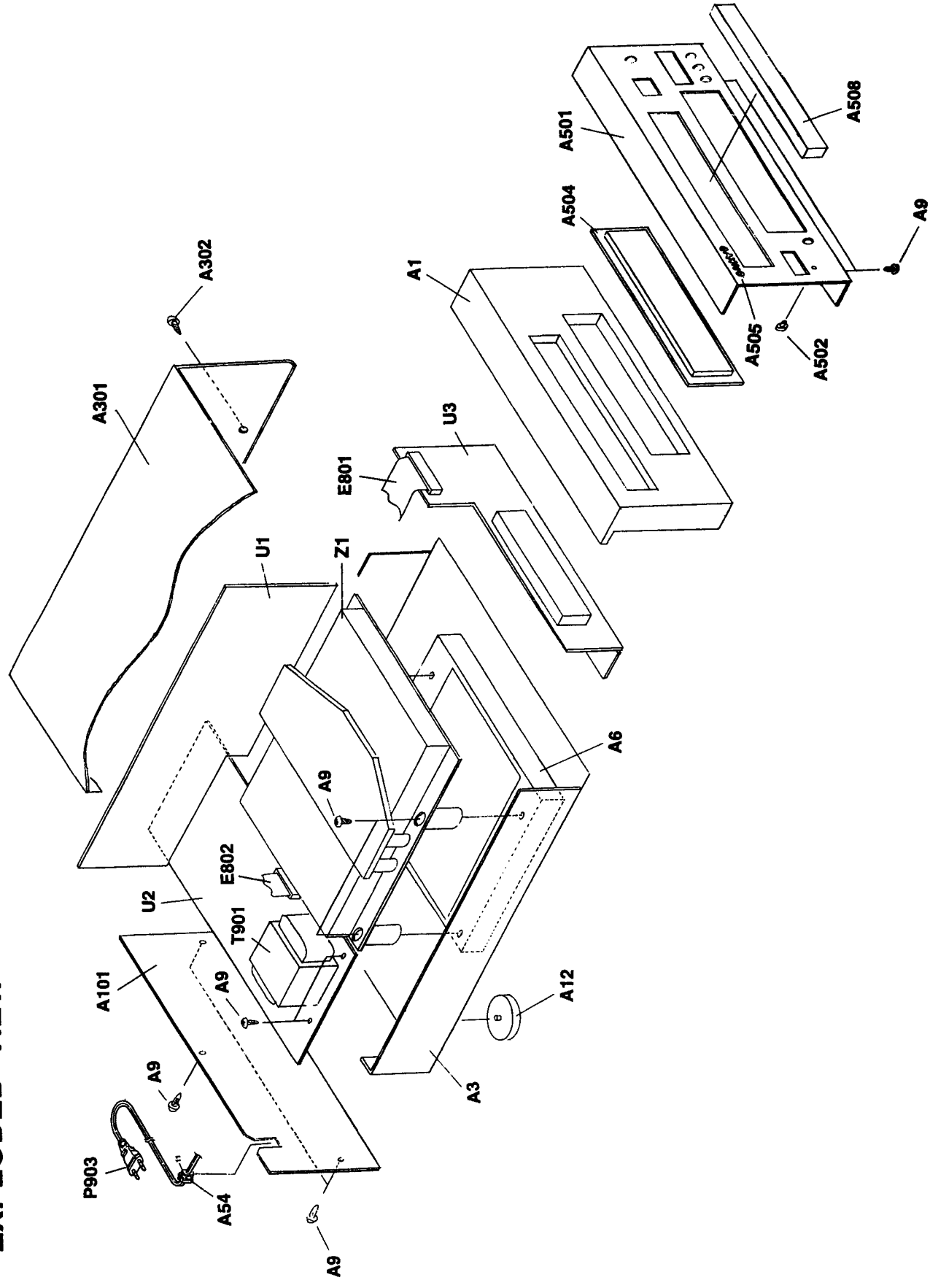
MECHANISM EXPLODED VIEW





REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION
1	2426-290-01	Tray	21	1692-667-11	Leafswitch
3	2625-544-01	Gear cover	22	1564-721-11	Socket
4	2625-535-01	Tray gear	23	1640-523-11	Loading pc board
5	2625-546-01	Chucking plate	24	X2625-117-1	Loading motor
7	2625-537-01	Chucking yoke	25	2625-274-02	Middle gear
8	1452-493-21	Magnet	26	2625-536-02	Loading pulley
9	2625-541-02	Damper	27	3653-387-00	Belt
10	2646-291-01	Chucking pulley	51	X2625-877-1	Motor chassis
11	2646-288-01	Sub chassis	52	X2625-769-1	Motor gear
12	2627-236-01	Tension spring	53	2626-908-01	Sled shaft
13	2627-235-01	Tension spring	54	2626-907-01	Gear
14	2646-289-01	Washer	55		2*3, screw
15		KSM-213CCM,Traverse unit	56	1572-085-11	Leafswitch
16	2627-234-01	Insulator	57	1639-678-12	Motor pc board
17	2625-552-06	Main chassis	58	1594-722-11	Socket
19	2625-547-01	Drive gear	59	8848-483-05	Optical pick-up
20	2625-545-04	Control cam			

EXPLODED VIEW



EXPLODED VIEW – PARTS LIST

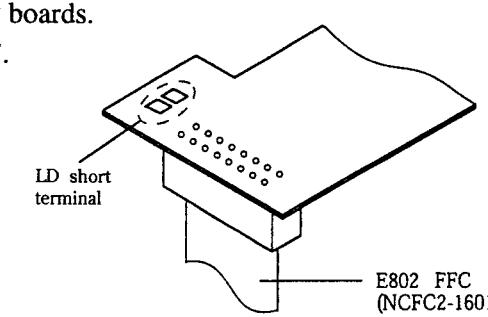
REF.NO.	PART NO.	DESCRIPTION
A1	27111040A	Front bracket
A3	27100337	Chassis
A6	27191019	Holder M
A9	838130088	3TTB+8B,Self-tapping screw
A12	27175323	Leg
A54	27300750	⚠Bushing, cord
A101	27122398A	Rear panel <P>
	27122399A	Rear panel <D>
A301	28184703Z	Top cover
A302	838230088	3TTB+8B(NI),Nickel screw
A501	27211965A	Front panel
A502	28198864	Facet
A504	28191801	Clear plate
A505	28135247	Badge
A508	28148374	Door
E801	2047271012	NCFC7-271012,Flexible flat cable
E802	2042161012	NCFC2-161012,Flexible flat cable
F901	252075	⚠2.5A-SE-EAK,Fuse <P>
P102	2009990500	NSAS-10P0654,Socket
P103	2002391215	NSAS-12P0655,Socket
P903	253193HIT	⚠AS-CEE,Power supply cord <P>
	253191HIT	⚠AS-UC-7#18(SPT-1),Power supply cord <D>
T901	2301133	⚠NPT-1251P,Power transformer <P>
	2301295	⚠NPT-1251D,Power transformer <D>
U1	1H378559-1A	NAAR-6159-1A,Main circuit pc board ass'y <P>
	1H378559-1B	NAAR-6159-1A,Main circuit pc board ass'y <D>
U2	1H378560-1A	NAPS-6160-1A,Power supply circuit pc board ass'y <P>
	1H378560-1B	NAPS-6160-1B,Power supply circuit pc board ass'y <D>
U3	1H378561-1A	NADIS-6161-1A,Display circuit pc board ass'y <P>
	1H378561-1B	NADIS-6161-1B,Display circuit pc board ass'y <D>
Z1	24800018	NCD-170S,CD mechanism ass'y
Z2	29362028	Label

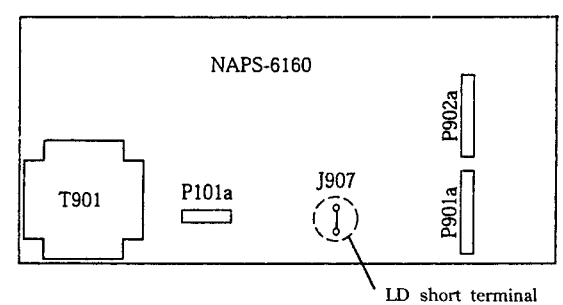
<P>:230V model only
<D>:120V model only

REPLACEMENT OF OPTICAL PICK-UP

The laser diode in the optical pickup block is so sensitive to static electricity, surge current and etc. that the components are liable to be broken down or its reliability remarkably deteriorated.
During repair, carefully take the following precautions.

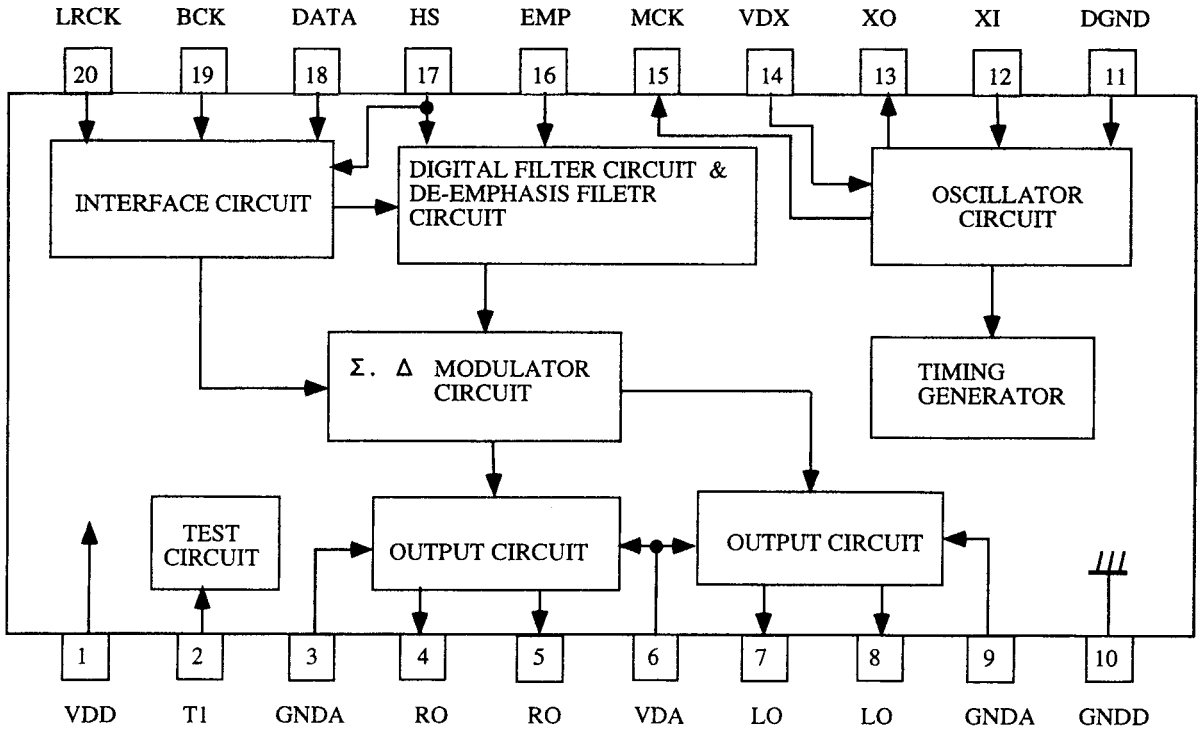
1. When replacing the optical pickup, first short J907 on Power supply PC board.
2. Disconnect the socket P901 between Power supply and Main circuit PC boards.
3. Solder the LD terminal on Mechanism.
4. Disconnect the flexible flat cable E802.
5. Replace the optical pickup.
6. Connect the flexible flat cable E802.
7. Unsolder the LD terminal on Mechanism.
8. Connect the socket P901 between Power supply and Main circuit PC boards.
9. Cut J907.





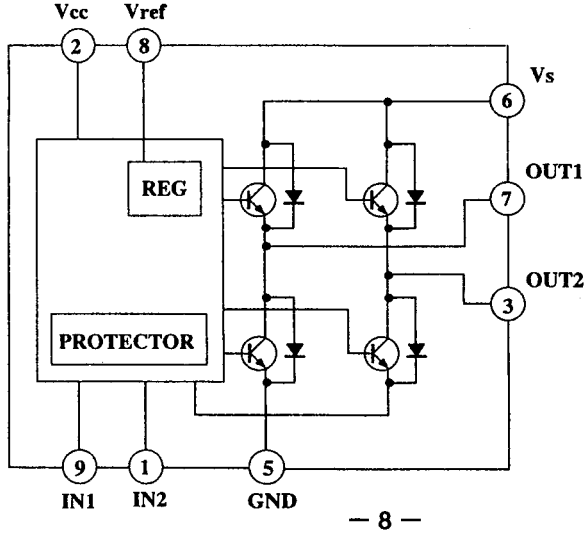
IC BLOCK DIAGRAMS AND DESCRIPTIONS

TC9268P



Pin No.	Symbol	I/O	Description	Pin No.	Symbol	I/O	Description
1	VDD	-	Power supply pin for digital section	11	GNDX	-	Ground pin for oscillator section
2	T1	I	Test pin. Connect to the ground.	12	XI	I	Connection pins for crystal oscillator
3	GNDA	-	Ground pin of analog section for right channel	13	XO	O	
4	RO	O	Data output pin of right channel	14	VDX	-	Power supply pin for crystal section
5	RO	O	Data inverted output pin of right channel	15	MCK	O	System clock output pin
6	VDA	-	Power supply pin for analog section	16	EMP	I	De-emphasis filter control pin
7	LO	O	Data inverted output pin of left channel	17	HS	I	Speed select pin
8	LO	O	Data output pin of left channel	18	DATA	I	Data input pin
9	GNDA	-	Ground pin of analog section for left channel	19	BCK	I	Bit clock input pin
10	GNDD	-	Ground pin for digital section	20	LRCK	I	LR clock input pin

TA7291S



INPUT		OUTPUT		
IN1	IN2	OUT1	OUT2	MODE
0	0	∞	∞	STOP
1	0	H	L	CW/CCW
0	1	L	H	CCW/CW
1	1	L	L	BRAKE

CCW:Counter clockwise direction
CW:Clockwise direction

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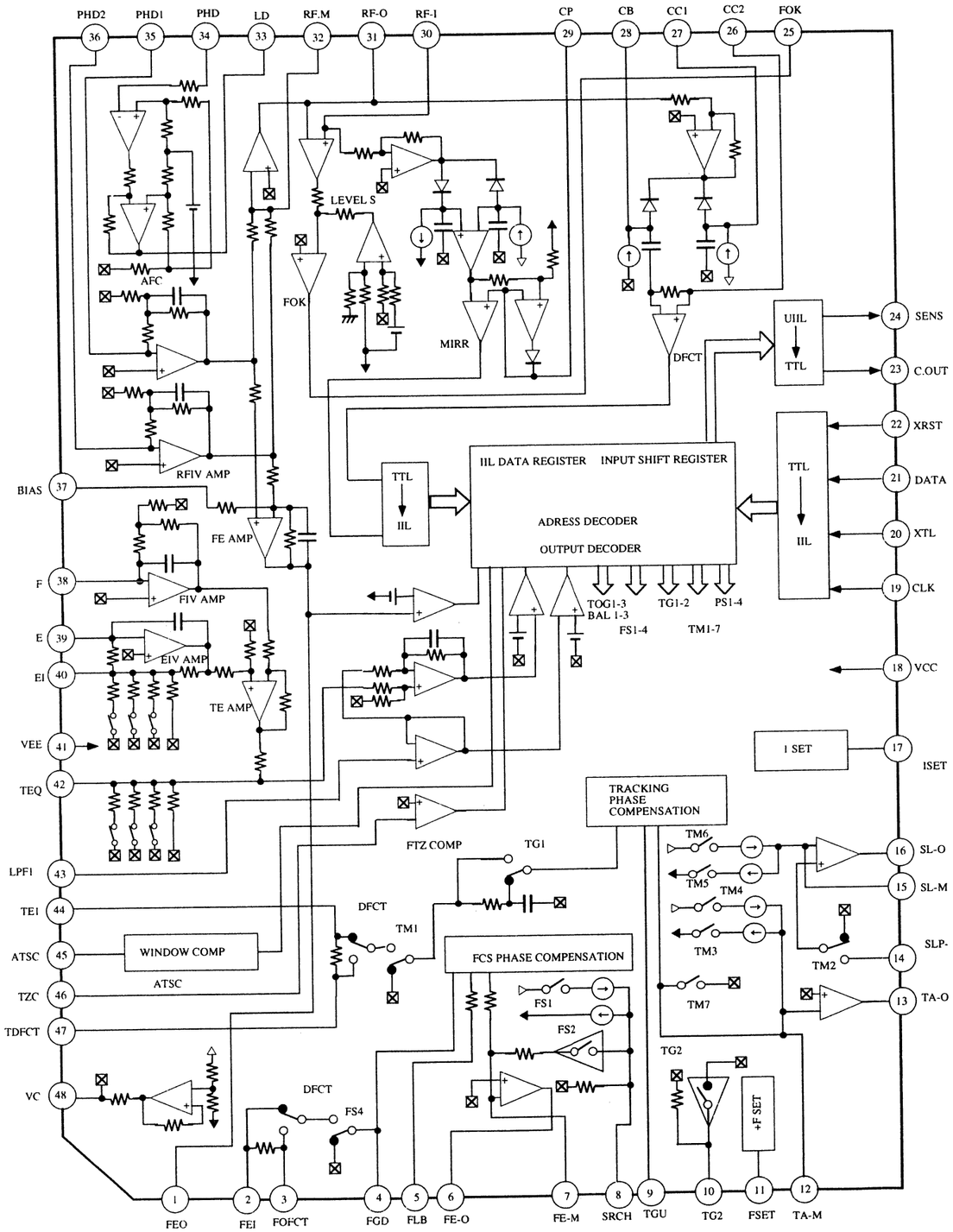
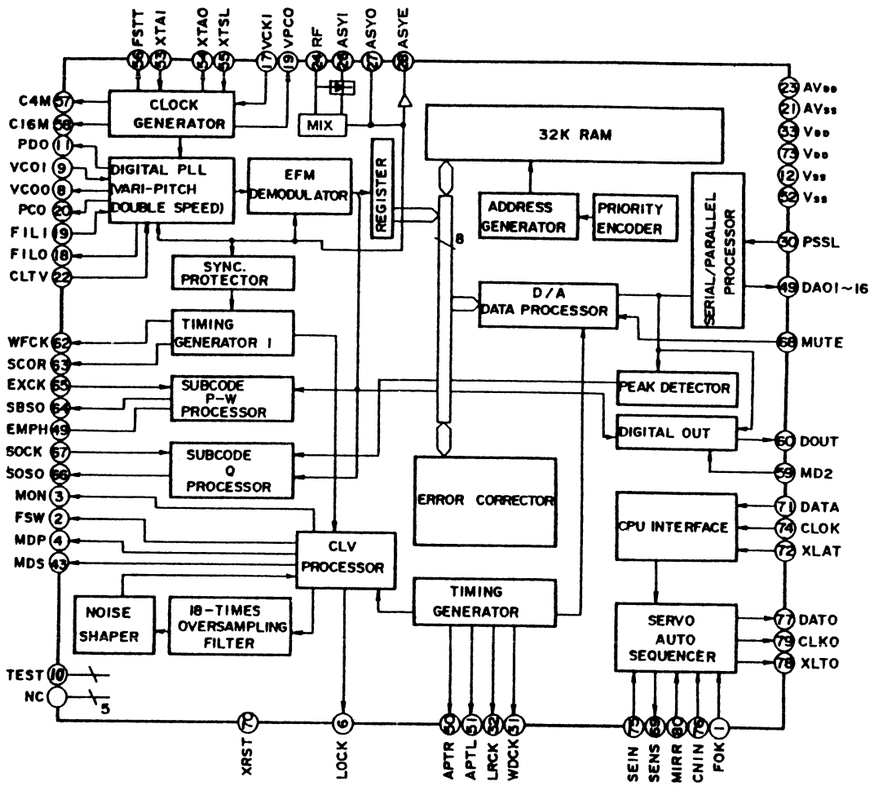


Pin No.	Symbol	I/O	Description
1	FEO	O	Output pin for focusing error amplifier
2	FEI	I	Input pin of focusing error
3	FDFCT	I	Capacitor connection pin for time constant when defect
4	FGD	I	Capacitor connection pin for high frequency gain Down of focusing servo
5	FLB	I	Time constant circuit connection pin for low frequency gain up of focusing servo
6	FE_O	O	Focusing drive output pin
7	FE_M	I	Inverted input pin of focusing amplifier
8	SRCH	I	Time constant circuit connection pin for focusing search waveform
9	TGU	I	Time constant circuit connection pin for tracking high frequency gain changeover
10	TG2	I	Time constant circuit connection pin for tracking high frequency gain changeover
11	FSET	I	Peak setting pin of phase compensation of focusing tracking
12	TA_M	I	Non-inverted input pin of tracking amplifier
13	TA_O	O	Inverted input pin of tracking amplifier
14	SL_P	I	Non-inverted input pin of sled amplifier
15	SL_M	I	Inverted input pin of sled amplifier
16	SL_O	O	Sled drive output pin
17	ISET	I	Input pin to decide focusing search, tracking jump, and height of sled kick.
18	VCC	-	Power supply pin (+5V)
19	CLK	I	Serial data transfer clock input pin form microprocessor
20	XLT	I	Latch input pin from microprocessor
21	DATA	I	Serial data input pin from microprocessor
22	XRST	I	Reset input pin
23	C.OUT	O	Signal output pin to count the track numbers.
24	SENS	O	FZC, DFCT,TZC etc. signal output pin from command of microprocessor
25	FOK	O	Comparator output pins of focus OK.
26	CC2	I	Defect bottom hold input pin
27	CC1	O	Defect bottom hold output pin
28	CB	I	Capacitor connection pin for defect bottom hold
29	CP	I	Mirror hold capacitor connection pin
30	RF_I	I	RF summing amplifier input pin
31	RF_O	O	RF summing amplifier output pin
32	RF_M	I	RF summing inverted amplifier output pin
33	LD	O	APC amplifier output pin
34	PHD	I	APC amplifier input pin
35	PHD1	I	Inverted input pin of RF I-V amplifier
36	PHD2	I	Inverted input pin of RF I-V amplifier
37	FE_BIAS	I	Bias adjustment pin of focusing error amplifier
38	F	I	Inverted input pin of I-V amplifier of F
39	E	I	Inverted input pin of I-V amplifier of E
40	EI	-	Gain adjustment of I-V amplifier E
41	VEE	-	Ground
42	TEO	O	Tracking error amplifier output pin
43	LPFI	I	Comparator input pin for balance adjustment
44	TEI	I	Tracking error input pin
45	ATSC	I	Window comparator input pin for ATSC detector
46	TZC	I	Tracking zero-cross comparator input pin.
47	TDFCT	I	Capacitor connection pin for time constant when defect
48	VC	O	DC voltage output pin of (VCC+VEE)/2

CXD2500BQ



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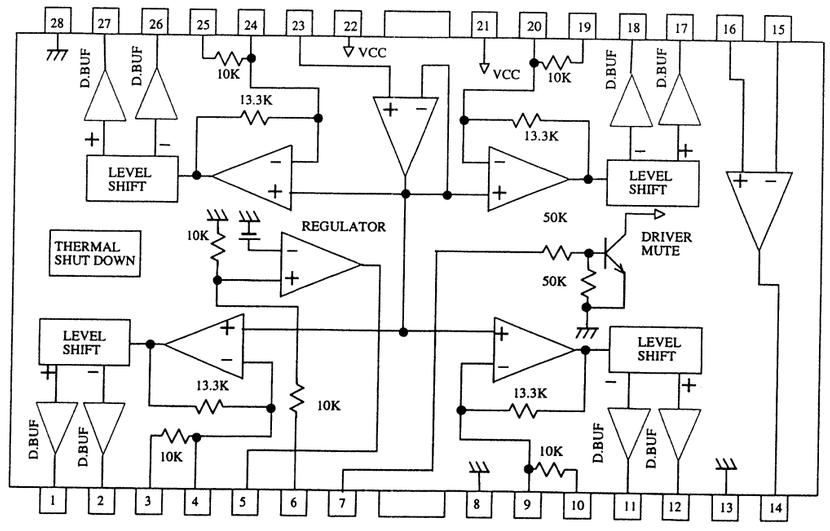
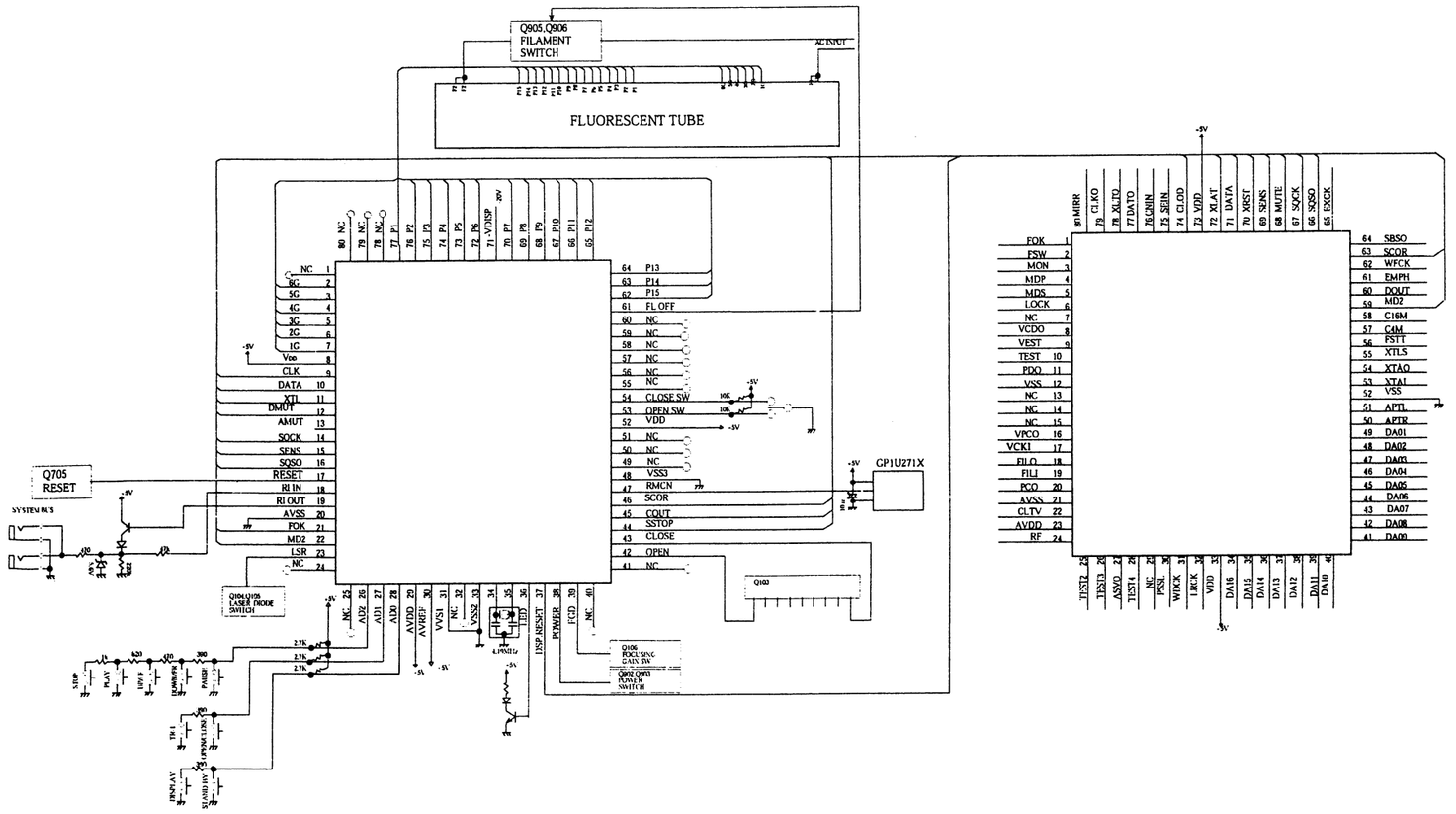


NO.	SYMBOL	I/O	DESCRIPTION
1	FOK	I	Foucs Ok input
2	FSW	O	Output filter changeover output for spindle motor
3	MON	O	Spindle motor control output
4	MDP	O	Spindle motor servo control
5	MDS	O	Spindle motor servo control
6	LOCK	O	H when GFS is the high level
7	NC		
8	VCOO	O	Oscillation circuit output for analog EFM PLL.
9	VCOI	I	Oscillation circuit input for analog EFM PLL. (8.6436MHz)
10	TEST	I	Test terminal
11	PDO	O	Charge pump output analog EFM PLL
12	Vss		Ground terminal
13-15	NC		
16	VPCO	O	PLL charge pump output for variable pitch
17	VCKI	I	Clock input for variable pitch from VCO (16.934MHz)
18	FILO	O	Filter output for master PLL.
19	FILI	I	Filter input for master PLL.
20	PCO	O	Charge pump output of master PLL
21	AVss		Analog ground
22	CLTV	I	VCO control voltage input for master
23	AVDD		Analog section power supply (+5V)
24	RF	I	EFM signal input
25	BIAS	I	Asymmetry circuit constant current input
26	ASYI	I	Asymmetry comparator voltage input
27	ASYO	O	EFM full swing output
28	ASYE	I	Asymmetry control circuit
29	NC		
30	PSSL	O	Audio data output mode changeover input Serial data at L and paraller data at H.
31	WDCK	I	D/A interface for 48 bits slot. Word clock f=2Fs.
32	LRCK	I	D/A interface for 48 bits slot. LR clock f=Fs.
33	VDD		Power supply terminal (+5V)
34-49			Data output terminals

			PSSL=1	PSSL=0
34	DA16	O	DA16	Serial data of 48 bits slot
35	DA15	O	DA15	Bit clock of 48 bits slot
36	DA14	O	DA14	Serial data of 64 bits slot
37	DA13	O	DA13	Bit clock of 68 bits slot
38	DA12	O	DA12	LR clock of 68 bits slot
39	DA11	O	DA11	GTOP output
40	DA10	O	DA10	XUGF output
41	DA09	O	DA09	XPLCK output

NO.	SYMBOL	I/O	DESCRIPTION	
42	DA08	O	DA08	GFS output
43	DA07	O	DA07	RFCK output
44	DA06	O	DA06	C2P0 output
45	DA05	O	DA05	XRAOF output
46	DA04	O	DA04	MNT 3 output
47	DA03	O	DA03	MNT 2 output
48	DA02	O	DA02	MNT 1 output
49	DA01	O	DA01	MNT 0 output
50	APTR	O	Control output for aperture correction. H when R ch.	
51	APTL	O	Control output for aperture correction. H when L ch.	
52	Vss		Ground terminal	
53	XTAI	I	Crystal oscillation circuit input of 16.9344MHz or 33.8688MHz input.	
54	XTAO	O	Crystal oscillation circuit output of 16.9344MHz.	
55	XTSL	I	Crystal selection input terminal. L when 16.9344MHz. H when 33.8688MHz.	
56	FSTT	O	2/3 divided output of pins 53 and 54.	
57	C4M	O	4.2336 MHz output	
58	C16M	O	16.9344 MHz output	
59	MD2	I	Digital output control input. On at high level.	
60	DOUT	O	Digital output	
61	EMPH	O	Emphasis control output. Active high.	
62	WFCK	O	Write frame clock output	
63	SCOR	O	Sub-code detection output. H when is detected SO or SI.	
64	SBSO	O	Serial output of sub-code (P~W)	
65	EXCK	I	Clock input for read out SQSO.	
66	SQSO	O	Sub Q 80 bits, PCM peak, and level data 16 bits output.	
67	SQCK	I	Clock input for read out SQSO	
68	MUTE	O	Muting control output. Active H.	
69	SENS		Sens output. Output to the microprocessor	
70	XRST	I	System reset. Reset at the low level.	
71	DATA	I	Serial data input from the microprocessor.	
72	XLTA	I	Latch input from the microprocessor. Latch the serial data at the trailing.	
73	VDD		Power supply treminal	
74	CLOK	I	Serial data transfer clock input from microprocessor	
75	SEIN	I	Sens input from SSP	
76	CNCI	I	Track jump numbers count signal input	
77	DATO	O	Serial data output to SSP	
78	XLTO	O	Serial data latch output to SSP. Latch at trailing.	
79	CLKO	O	Serial data transfer clock output to SSP.	
80	MIRR	I	Mirror signal input	

MICROPROCESSOR CONNECTION DIAGRAM

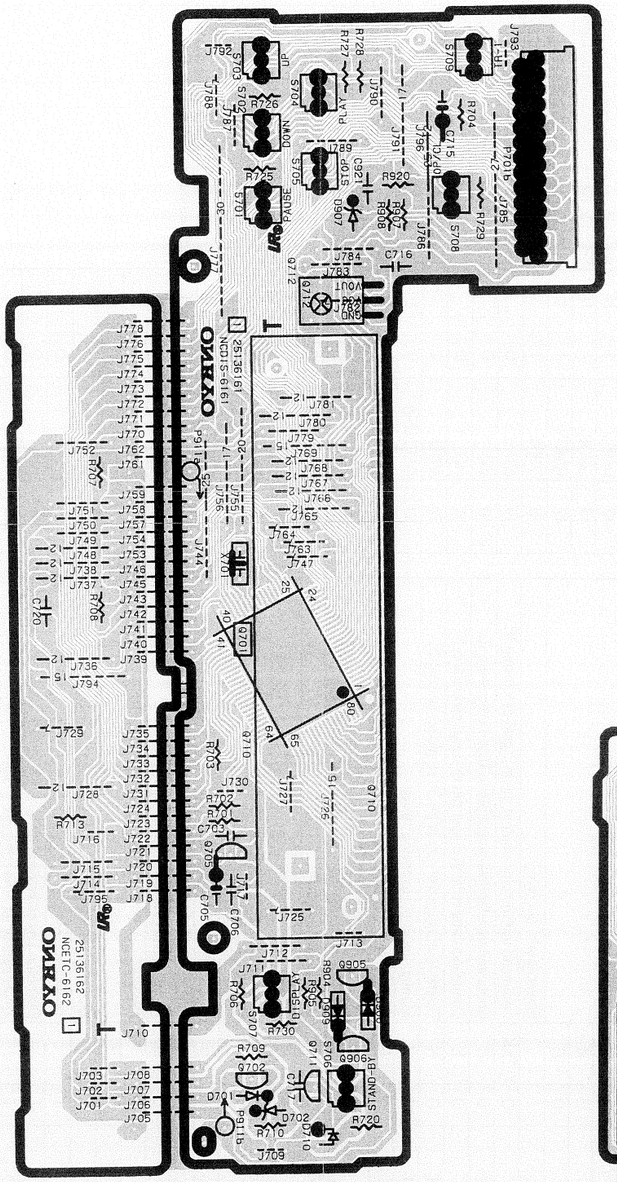


MICROPROCESSOR TERMINAL DESCRIPTION

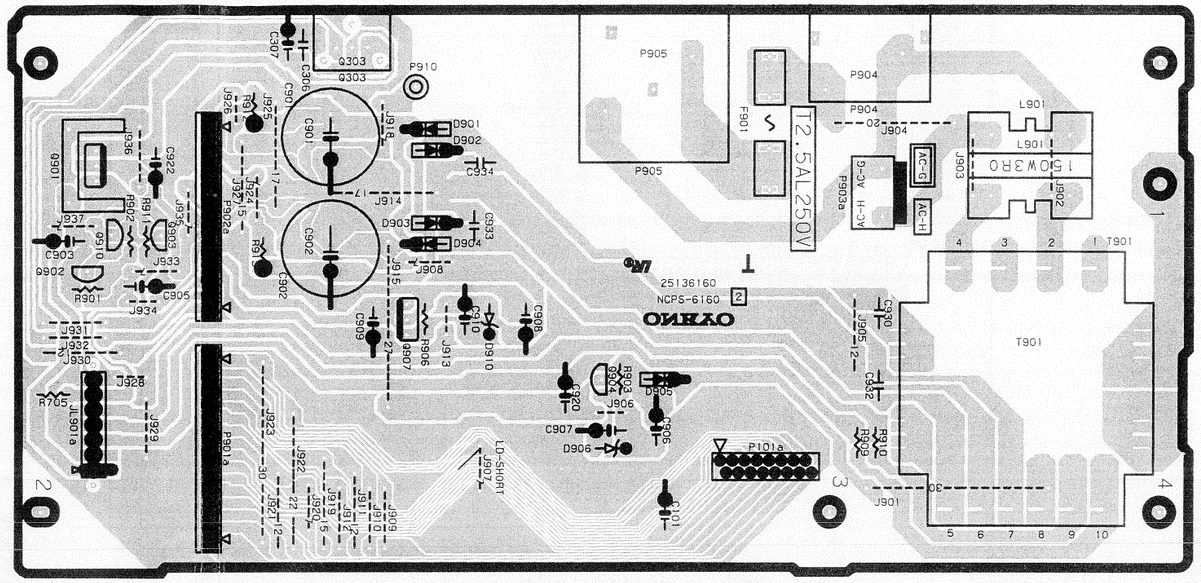
Pin No.	Function	I/O	Logic	Description
1	NC	O		Not used.
2	6G	O	H	Grid output pins of FL tube
3	5G	O	H	
4	4G	O	H	
5	3G	O	H	
6	2G	O	H	
7	1G	O	H	
8	VDD1	I		Power source pin (+5V)
9	CLK	O	CLK	Command transfer clock output pin to signal processing IC
10	DATA	O	H	Command transfer data output pin to signal processing IC
11	XLT	O	L	Command transfer latch output pin to signal processing IC
12	DMUT	O	H	Digital muting control output pin to signal processing IC
13	AMUT	O	H	Muting output pin to analog circuit
14	SQCK	O	CLK	Subcode reading clock output pin to signal processing IC
15	SENS	I	H/L	Sense signal input pin from signal processing IC
16	SQSO	I	H	Subcode data input pin form signal proceeding IC
17	RESET	I	L	Reset signal input pin
18	RI.IN	I	H	System signal input pin
19	RI.OUT	O	L	System signal output pin
20	AVSS	I		Power supply for A/D converter (Ground)
21	FOK	I	H	Focus OK signal input pin
22	MD2	O	H	Enable signal output pin of optical output to signal processing IC
23	LSR	O	H	Laser control output pin.
24	NC	O		Not used
25	NC	O		
26	AD2	I		Operation key connection pin 3
27	AD1	I		Operation key connection pin 2
28	AD0	I		Operation key connection pin 1
29	AVDD	I		Power supply for A/D converter (+5V)
30	AVREF	I		Reference power supply for A/D converter (+5V)
31	VSS1	I		Ground pin
32	NC	O		Not used
33	VSS2	I		Ground pin
34	X1	I	CLK	System clock oscillation circuit input pin
35	X2	O	CLK	System clock oscillation circuit output pin
36	LED	O	H	STAND-BY LED control pin
37	DSP.RESET	O	L	Reset output pin to signal processing IC
38	POWER	O	H	Power source control output pin
39	FGD	O	H	Focus gain down control output pin.
40	NC	O		Not used.

Pin No.	Function	I/O	Logic	Description
41	NC	O		Not used.
42	OPEN	O	L	Tray control output pin
43	CLOSE	O	L	Tray control output pin
44	SSTOP	I	L	Pickup innermost position detection switch input pin
45	COUT	I	H	Bit track count input pin
46	SCOR	I	H	Subcode frame detection signal input pin from signal processing IC
47	RMCN	I	L	Remote control signal input pin
48	VSS3	I		Ground pin
49	NC	O		Not used,
50	NC	O		
51	NC	O		
52	VDD	I		Power supply pin (+5V)
53	OPEN.SW	I	L	Tray open switch input pin
54	CLOSE.SW	I	L	Tray close switch input pin
55	NC	O		Not used.
56	NC	O		
57	NC	O		
58	NC	O		
59	NC	O		
60	NC	O		
61	FL.OFF	O	H	Control output pin of FL tube
62	P15	O	H	Segment output pins
63	P14	O	H	
64	P13	O	H	
65	P12	O	H	
66	P11	O	H	
67	P10	O	H	
68	P9	O	H	
69	P8	O	H	
70	P7	O	H	
71	-VDISP	I		Negative power supply pin of FL tube
72	P6	O	H	Segment output pins
73	P5	O	H	
73	P3	O	H	
74	P4	O	H	
75	P3	O	H	
77	P1	O	H	
78	NC	O		Not used.
79	NC	O		
80	NC	O		

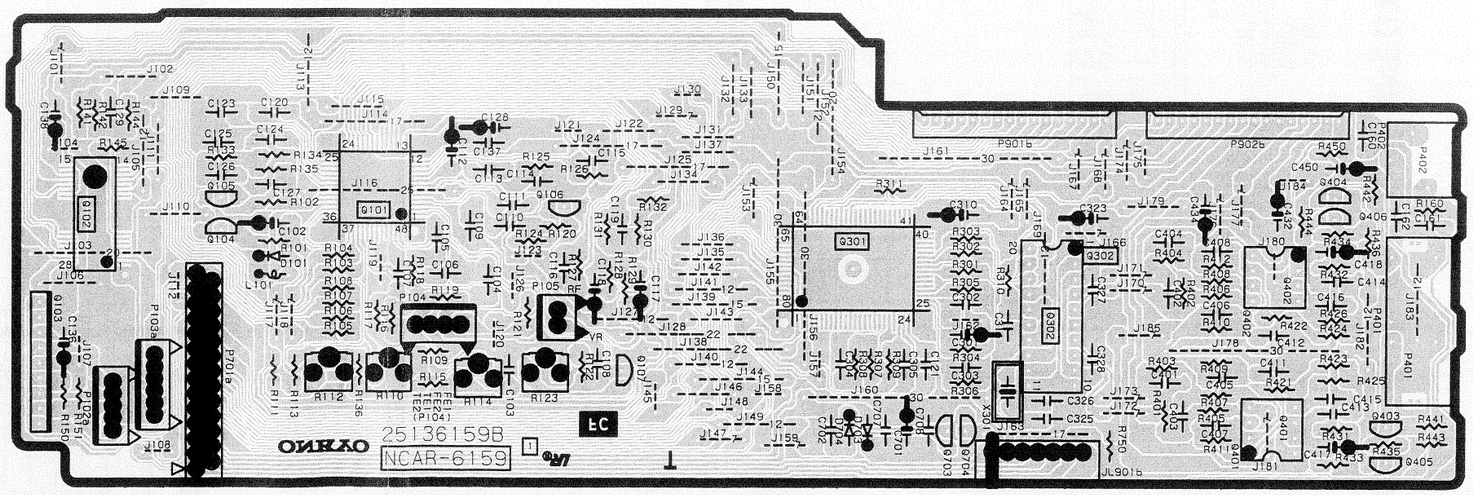
PRINTED CIRCUIT BOARD VIEW FROM BOTTOM SIDE



DISPLAY CIRCUIT PC BOARD

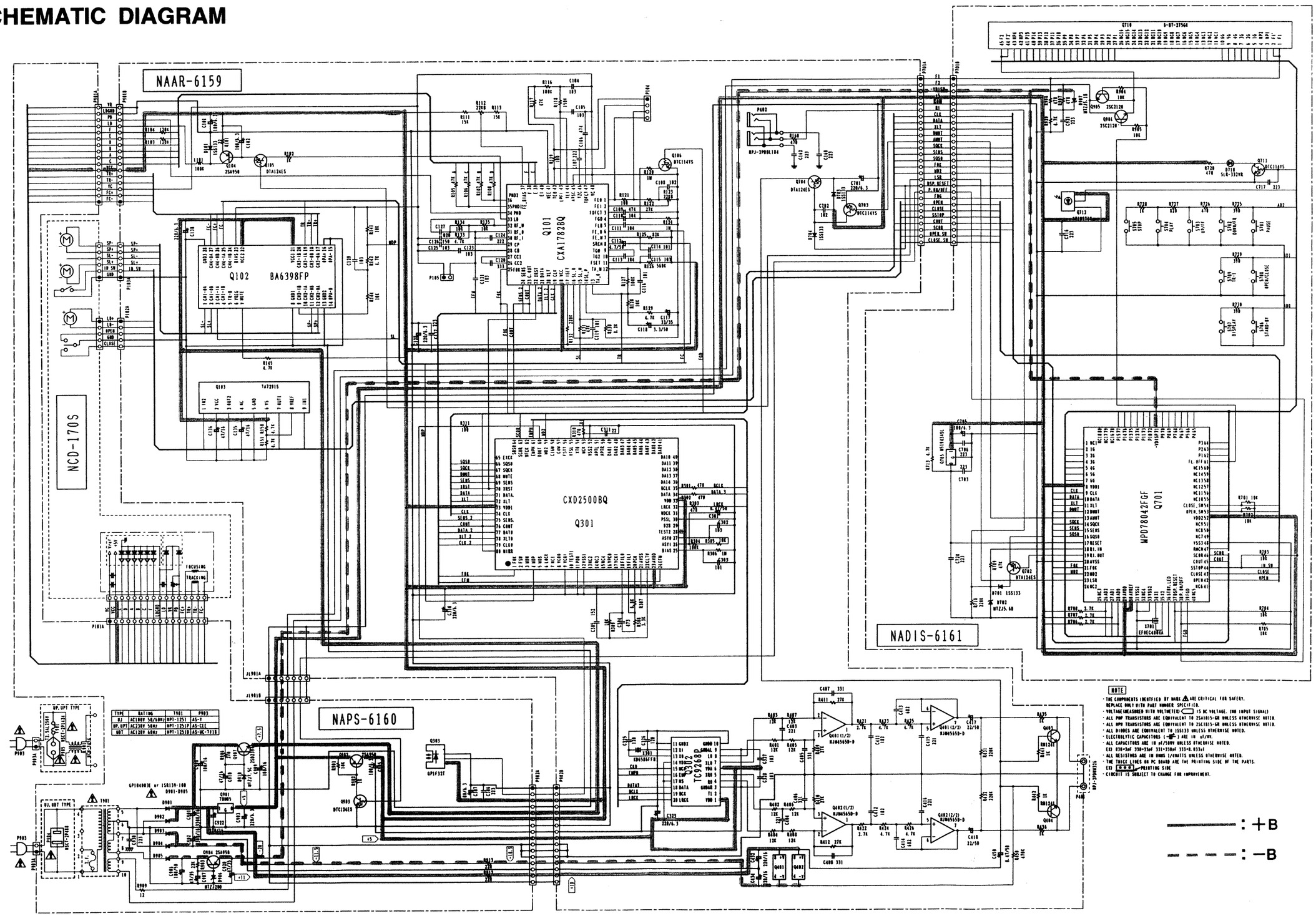


POWER SUPPLY CIRCUIT PC BOARD



MAIN CIRCUIT PC BOARD

SCHEMATIC DIAGRAM



PRINTED CIRCUIT BOARD-PARTS LIST

MAIN CIRCUIT PC BOARD(NAAR-6159-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	ICs	
Q101	22241093	CXA1782BQ
Q102	22241066	BA6398FP
Q103	22240239	TA7291S
Q301	22240487A	CXD2500BQ
Q302	22240792	TC9268P
Q401,Q402	22240191	NJM4565D-D
	Transistors	
Q104	2211504	2SA950-Y
Q105,Q704	2212600 or	DTA124ES or
	2213580	RN2203
Q106,Q703	221281 or	DTC114YS or
	2213570	RN1207
Q403,Q404	2213631 or	RN1241-A or
	2213632	RN1241-B
	Diodes	
D101	223163 or	1SS133 or
D703,D704	223222	WG713A
	Oscillator	
X301	3010308	HC-49/U0316.9344M
	Coil	
L101	233454K100	NCH-1452 100K
	Capacitors	
C101,C102	354721019	100 μF,6.3V,Elect.
C104,C105	374721034	0.01 μF±5%,50V,Plastic
C106,C109	374724744	0.47 μF±5%,50V,Plastic
C107,C124	374722224	2200pF±5%,50V,Plastic
C108,C702	374721024	1000pF±5%,50V,Plastic
C110,C111	374721044	0.1 μF±5%,50V,Plastic
C112	354780479	4.7 μF,50V,Elect.
C113	374721044	0.1 μF±5%,50V,Plastic
C115,C121	374721034	0.01 μF±5%,50V,Plastic
C117	354763309	33 μF,35V,Elect.
C118	354780339	3.3 μF,50V,Elect.
C120	374723334	0.033 μF±5%,50V,Plastic
C123,C125	374721034	0.01 μF±5%,50V,Plastic
C128	354722219	220 μF,6.3V,Elect.
C129,C302	374721034	0.01 μF±5%,50V,Plastic
C136	354744709	47 μF,16V,Elect.
C138	354742219	220 μF,16V,Elect.
C301,C450	354784799	0.47 μF,50V,Elect.
C304	374724734	0.047 μF±5%,50V,Plastic
C305	374721524	1500pF±5%,50V,Plastic
C310,C323	354722219	220 μF,6.3V,Elect.
C327,C328	374721034	0.01 μF±5%,50V,Plastic
C411,C412	374721824	1800pF±5%,50V,Plastic
C413,C414	374726824	6800pF±5%,50V,Plastic
C417,C418	393382207	22 μF,50V,Elect.
C432,C434	354742219	220 μF,16V,Elect.
C701	354724719	470 μF,6.3V,Elect.
	Resistors	
R112,R123	5210242	N06HR22KBE,Trimming
	Sockets	
JL901a	25051111	NSCT-7P898
P701a	25051834	NSCT-27P1621
P701aor	25050703	NSCT-27P507
P701aor	25050859	NSCT-27P654
P902b	25051527	NSCT-16P1314
	Plugs	
P102a	25055149	NPLG-5P133
P103a	25055150	NPLG-6P134
P104	25055045	NPLG-4P33
P105	25055038	NPLG-2P29
P901a	25055805	NPLG-16P761
	Terminals	
P401	25045512	NPJ-2PDWH326
P402	25045330	NPJ-2PDBL184

NOTE: <P>:230V model only
<D>:120V model only

POWER SUPPLY CIRCUIT PC BOARD(NAPS-6160-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	Photo coupler	
Q303	24120038	GP1F32T
	IC	
Q901	222780055JRC or	NJM78M05FA
	222780055MA	AN78M05F
	Transistors	
Q902,Q904	2211504	2SA950-Y
Q903	2213160	DTC124ES
Q907	2202706	2SD2394-F
	Diodes	
D901-D905	22380035 or	⚠GP104003E or
	22380032	⚠1SR139-100
D906	224472004	MTZJ20D
D910	224470753	MTZJ7.5C
	Choke coil	
L901	231222	NCH-3454 <P>
	Capacitors	
C307,C905	354721019	100 μF,6.3V,Elect.
C901,C902	393343327	3300 μF,16V,Elect.
C903	393322217	220 μF,6.3V,Elect.
C906	354781019	100 μF,50V,Elect.
C907,C920	354764709	47 μF,35V,Elect.
C909	354741019	100 μF,16V,Elect.
C910	354744709	47 μF,16V,Elect.
C922	354742219	220 μF,16V,Elect.
	Sockets	
P101a	25051974	NSCT-16P1761
P901b	25051527	NSCT-16P1314
P904	25050684	⚠NSCT-2P488 <D>
P905	25051637	⚠NSCT-2P1424 <P>
JL901b	25050271	NSCT-7P99
	Plugs	
P902a	25055805	NPLG-16P761
P903a	25055675	NPLG-2P631
	Fuseholders	
F901a	25050065	YSH403T <P>

DISPLAY CIRCUIT PC BOARD(NADIS-6161-1A/1B)

CIRCUIT NO.	PART NO.	DESCRIPTION
	FL tube	
Q710	212165	6-BT-275GK
	ICs	
Q701	22241141	μPD78042FGF-055
Q705	22241210	BMR-0101D
	Remote sensor	
Q712	241307	GP1U271X
	Transistors	
Q702	2212600 or	DTA124ES or
	2213580	RN2203
Q711	221281	DTC114YS
Q905,Q906	2211164	2SC2120-Y
	Diodes	
D701	223163 or	1SS133 or
	223222	WG713A
D702	224470562	MTZJ5.6B
D710	225338	SLR-332VR
D907	224470512	MTZJ5.1B
	Oscillator	
X701	3010229	EFOEC004A4
	Capacitors	
C705	353721019	100 μF,6.3V,Elect.
	Socket	
P701b	25051871	NSCT-27P1658
P701bor	25050724	NSCT-27P528
P701bor	25050891	NSCT-27P686
	Push switches	
S701-S709	25035652	NPS-111-S604
	Holder	
E701	27190941	(FL)

ADJUSTMENT PROCEDURES

Preparation

Set the trimming resistors R112 and R123 to center.

Focusing offset adjustment

1. Connect Oscilloscope to pin 1 of Socket P105 (RF).
   Ground is pin 2 (VR).
2. Load Test disc YEDS-18 on the tray and playback the track 2.
3. Adjust Trimming resistor R112 so that the amplitude of eye pattern is maximum.
4. Remove Oscilloscope.

Focusing gain adjustment

1. Set the output of AF oscillator to 1kHz and 1～1.5Vp-p.
2. Connect AF oscillator and Oscilloscope shown below.

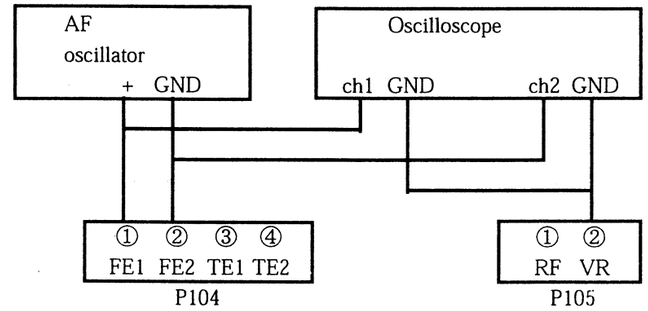
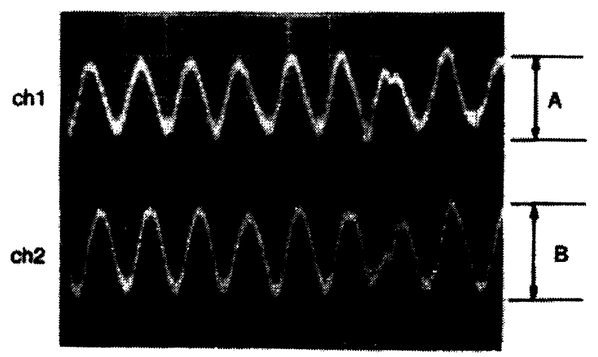


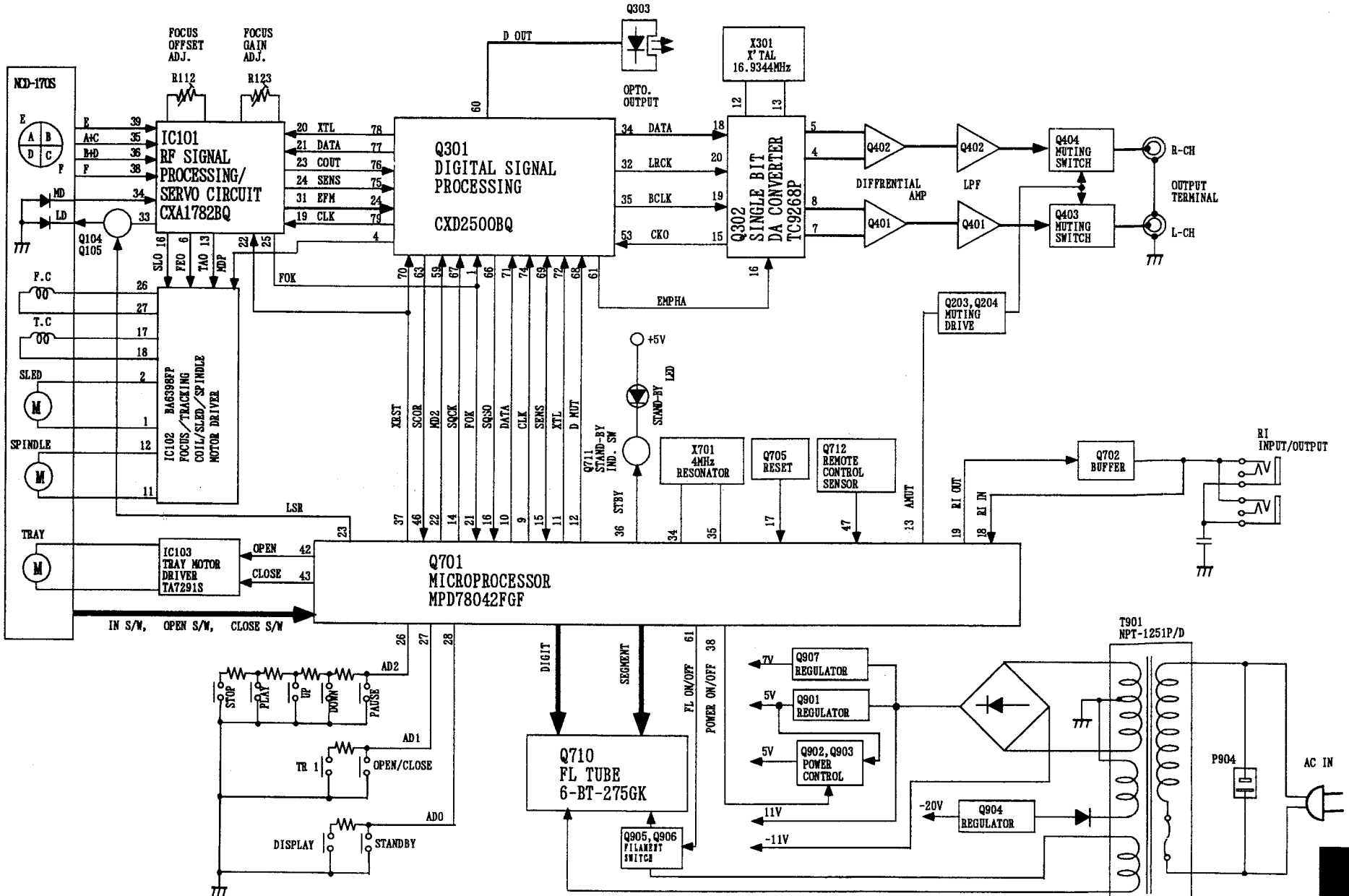
Fig. 1

3. Load Test disc YEDS-18 on the tray and playback the track 2.
4. Adjust Trimming resistor R123 so that the signal of channel 2 on Oscilloscope becomes 1.25 times of channel 1. (Refer figure 2)
5. Remove AF oscillator and Oscilloscope.

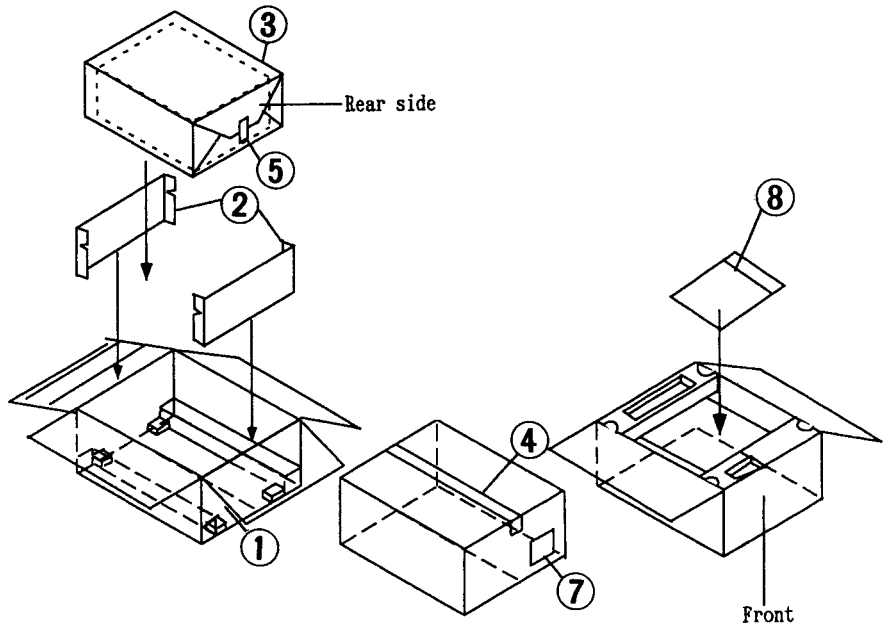


A : B = 1 : 1.25

BLOCK DIAGRAM



PACKING VIEW



REF.NO.	PART NO.	DESCRIPTION
1	29053231	Carton box
2	29095797	Sheet
3	29100156	Poly bag
4	29110071	PP tape
5	261504	Paper tape
7	29362232	Label EAN
8	Accessay bag ass'y	
	29100180	240*250,Poly bag
	2010098A or	Audio cord
	2010244	
	2010200	RI cord
	29342504	Instruction manual E
	29342505	Instruction manual U3 FSI <E>
	29342506	Instruction manual U3 GSwD <E>
	29342507	Instruction manual T <A>

<E>: European model only
<A>: Asian model only

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